

Contributors to This Issue

E. R. BERLEKAMP, B.S., M.S., 1962, Ph.D., 1964, Massachusetts Institute of Technology; Assistant Professor of electrical engineering at University of California, Berkeley, and consultant to Jet Propulsion Laboratory, 1964—1967; Bell Telephone Laboratories, 1967—. Mr. Berlekamp's work has been chiefly in the areas of information and coding theory and combinatorial mathematics. Member, IEEE, ACM, MAA.

ANDREW H. BOBECK, B.S.E.E., 1948; M.S.E.E., 1949, Purdue University; Bell Telephone Laboratories, 1949—. Upon completion of the Laboratories' Communications Development Training Program in 1952, Mr. Bobeck initially engaged in the design of both communications and pulse transformers. Since 1953 he has designed solid-state memory and logic devices and currently supervises a group which specializes in that activity. Member, IEEE, Eta Kappa Nu, Tau Beta Pi.

C. DRAGONE, Laurea in E. E., 1961, Padua University (Italy); Bell Telephone Laboratories, 1961—. Mr. Dragone has been engaged in experimental and theoretical work on microwave antennas and solid-state power sources. He is currently involved in solid-state radio systems experiments at the Crawford Hill Laboratory.

V. L. HEIN, B.S.M.E., 1962, University of Missouri; M.S.M.E., 1964, Lehigh University; Bell Telephone Laboratories, 1962—. Mr. Hein has been engaged in the fabrication of semiconductor encapsulations and in the thermal design of semiconductors, semiconductor encapsulations and aging systems. He is now studying in the field of solid mechanics at Lehigh University under the Laboratories Doctoral Support Plan. Member, Tau Beta Pi, Pi Tau Sigma, Pi Mu Epsilon.

JOHN E. HOPCROFT, B.S., 1961, Seattle University; M.S., 1962, Ph.D., 1964, Stanford University; Bell Telephone Laboratories, 1966—67. He has been engaged in research in the theory of automata and formal languages. He is currently at Cornell University. Member, IEEE, ACM, Pi Mu Epsilon, Sigma Xi, Tau Beta Pi.

JAMES K. HSIAO, B.S., 1944, National Hunan University, China; M.S., 1957, Montana State College; Ph.D., 1962, Iowa State University; Bell Telephone Laboratories, 1962—1967. Mr. Hsiao worked in the Digital System Department at Whippany. Currently he is with Naval Research Lab in their Radar Division. Member, IEEE; associate member, Sigma Xi.

PETER LLOYD, B.Sc. (Eng.), 1961, Ph.D., 1966, Queen Mary College (University of London); Bell Telephone Laboratories, 1966—. Mr. Lloyd has worked for Associated Electrical Industries Ltd., in England, 1961—63. He is presently concerned with computer-aided design and analysis at piezoelectric devices and the evaluation of new piezoelectric materials. Associate Member, IEE.

E. A. J. MARCATILI, Aeronautical Engineer, 1947, and E. E., 1948, University of Cordoba (Argentina); research staff, University of Cordoba, 1947—54; Bell Telephone Laboratories, 1954—. He has been engaged in theory and design of filters in multimode waveguides and in waveguide systems research. More recently he has concentrated in the study of optical transmission media. Fellow, IEEE.

VASANT K. PRABHU, B.E. (Dist.), 1962, Indian Institute of Science, Bangalore, India; S.M., 1963, Sc.D., 1966, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1966—. Mr. Prabhu is a member of the Radio Research Laboratory, and is concerned with stability and noise problems in solid-state microwave devices. His areas of interest include systems theory, network theory, noise theory, and optical communication systems. Member, IEEE, Eta Kappa Nu, Sigma Xi, Tau Beta Pi, AAAS.

S. S. RAPPAPORT, B.E.E., 1960, Cooper Union; M.S.E.E., 1962, University of Southern California; Ph.D., 1965, New York University; Bell Telephone Laboratories, 1965—. Mr. Rappaport was first engaged in analytical studies of signal processing for radar. His current interest is in data communications theory. Member, IEEE, Tau Beta Pi, Eta Kappa Nu, Sigma Xi.

IRWIN W. SANDBERG, B.E.E., 1955, M.E.E., 1956, and D.E.E., 1958, Polytechnic Institute of Brooklyn; Bell Telephone Laboratories, 1958—. Mr. Sandberg has been concerned with analysis of military

systems, synthesis and analysis of active and time-varying networks, studies of properties of nonlinear systems, and with a few problems in communication theory. His current interests are in the area of numerical analysis. Member, IEEE, SIAM, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

MARVIN K. SIMON, B.E.E., 1960, City College of New York; M.S.E.E., 1961, Princeton University; Bell Telephone Laboratories, 1961—1963; Ph.D., 1966, New York University; Bell Telephone 1966—. Mr. Simon's early work at Bell Telephone Laboratories dealt with station apparatus development including *Touch-Tone*® and *Picturephone*® circuit design. He is currently engaged in theoretical studies of digital transmission systems. Member, IEEE, Eta Kappa Nu, Tau Beta Pi, Sigma Xi.

JEFFREY D. ULLMAN, B.S., 1963, Columbia University; Ph.D., 1966, Princeton University; Bell Telephone Laboratories, 1966—. Mr. Ullman has been engaged in research in formal languages and automata theory. Member, IEEE, ACM, Tau Beta Pi, Sigma Xi.

